REMARKS

Claims 1-18 were pending in the present application. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

The applicants acknowledge and appreciate receiving a copy of the form PTO-1449 submitted with the Information Disclosure Statement filed on September 29, 2003 on which the Examiner has initialed all listed items except for the Ghaby et al. reference 6,014,115 which was lined out. As the Examiner has not provided a reason as to why Ghaby et al. was not considered, Applicants request the Examiner to provide a reason as to why Ghaby et al. was not considered, to initial a clean copy of the original form PTO-1449 next to this reference, and to return a copy of the form PTO-1449 with the initialed Ghaby et al. reference.

Claims 6, 12, 15 and 18 have been amended to correct minor grammatical errors and not in response to any outstanding objection or rejection.

Claims 1-18 stand rejected under 35 USC 102(b) as being allegedly anticipated by any one of Edwards et al., U.S. Patent No. 4,704,611 ("Edwards") and Hart et al., U.S. Patent Application Publication No. US 2002/0061730 A1 ("Hart"). The rejection is respectfully traversed.

Applicants note by way of summary that in accordance with the claimed invention the performance of a satellite communication system can be increased by using a multivariate analysis to optimize the pointing of a boresight of a satellite-mounted antenna. Based on the direction of the boresight in relation to the communications cells on the ground, an angular displacement is established such that sidelobe intensity can affect factors such as Co-Channel Interference (CCI). Thus the boresight location can affect the overall system performance. The

optimized pointing of the boresight of the satellite-mounted antenna is determined for example relative to the CCI, e.g. by determining a boresight pointing location that minimizes the CCI. Alternatively, the frequency re-use plan of the satellite communication system may be analyzed to determine a high density cell region, and the boresight may be pointed relative to the high density cell region.

With regard to the rejection of claim 1-18, and independent claims 1, 7, and 13 in particular, the applied references fail to disclose aspects of the claimed invention. While Edwards and Hart describe satellite systems, both Edwards and Hart fail to describe for example with regard to claim 1, analyzing the performance of a satellite communication system to determine an optimal electrical boresight pointing location for an electrical boresight of an antenna and pointing the electrical boresight of the antenna at the optimal boresight pointing location. Both Edwards and Hart further fail to disclose, for example with regard to claim 7, a system including an antenna having an electrical boresight pointing at an optimal boresight pointing location determined by analyzing the performance of the satellite communication system. Still further, both Edwards and Hart fail to disclose, for example with regard to claim 13, an antenna having an electrical boresight pointing at an optimal boresight pointing location determined by analyzing the performance of the satellite communication system.

It should be noted that a close review of Edwards reveals that the fundamental reception mode is configured with respect to the boresight. To receive signals in the off-boresight directions, higher-order mode and associated mode conversion is used *without changing the boresight location*. In other words, the waveguide is tuned to four different off-boresight displacements having dedicated equipment (see, e.g. col 1, line 62) that is normally disabled and that can be enabled to receive on a selected displacement. Edwards fails to teach analyzing to determine an optimum pointing location and further ***does not point the boresight to the optimum***

location. Rather, Edwards uses mode conversion modules to facilitate reception of off-boresight signals without any change in boresight position.

Similarly, in Hart not only is there is no mention of changing the boresight location, Hart describes ***maintaining the boresight location*** . For example, Hart describes an antenna which generates an array of beams which are individually pointed to fixed regions of the earth. When the elevation of the satellite relative to a fixed region falls below a minimum value, the corresponding beam is redirected to a new area, while the other beams remain pointed at the corresponding fixed areas. According to the Hart antenna, beam-to-beam handover is reduced, *while maintaining the boresight of the antenna pointing at the nadir* (see, e.g. Abstract, paragraph [0078]).

Accordingly, it is submitted that a prima facie case of anticipation has not properly been established in that none of the applied references (Edwards and Hart) disclose the features of the claimed invention. It is requested therefore that the rejection of independent claims 1, 7, and 13 be reconsidered and withdrawn.

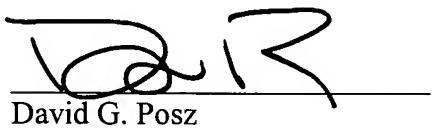
Claims 2-6, 8-12, and 14-18, by virtue of depending from claims 1, 7, and 13 are allowable for at least the reasons set forth with regard to claims 1, 7, and 13. It is requested that the rejection of claims 1, 7, and 13 be withdrawn.

Applicants incidentally note that claims 6, 12, 15, and 18 have been amended herein to correct minor typographical errors and not for reasons related to patentability.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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